REMARKS

Claims 1-24 are pending in this application. Claims 1, 4 and 7 are independent claims. By this amendment, claims 1, 4 and 7 are amended, and new claims 10-24 are added.

Reconsideration in view of the above amendments and following remarks is respectfully solicited.

The Claims Define Patentable Subject Matter

The final Office Action makes the following rejections:

(1) claims 1 and 2 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,499,294 to Friedman (hereafter Friedman);

(2) claim 7 is rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,875,249 to Mintzer et al. (hereafter Mintzer);

(3) claims 3 and 6 are rejected under 35 U.S.C. §103(a) as being unpatentable by Friedman;

(4) claims 4 and 5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Friedman in view of Mintzer; and

(5) claims 8 and 9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mintzer in view of Friedman.

These rejections are respectfully traversed.

Applicant respectfully submits that the cited references, either alone or in the cited combinations, fail to teach or suggest each and every feature as set forth in the claimed invention.

Rejections under 102(b)

Friedman Reference

Applicant respectfully submits that the claimed invention as set forth in independent claim 1 is distinguishable from Friedman. For example, the Examiner alleges that Friedman's calculating of a hash using "a predetermined algorithm" reads upon the claimed using "one randomly selected algorithm". Applicant respectfully disagrees with this allegation.

Friedman merely discloses that the digital camera processor comprises means for calculating a hash of the image file using a predetermined algorithm. (see Friedman, Abstract).

However, in contrast with Friedman, in the claimed invention as set forth in claim 1, the algorithm used is *randomly selected* from a plurality of algorithms.

In other words, the algorithm used in the present invention is lacking a definite plan or pattern (i.e., the definition of random), which in essence means that it is unknown which algorithm will be used ahead of time because it could be any of the plurality of algorithms.

In contrast with the present invention, in Friedman a predetermine (i.e., definite) algorithm is being used each time. (see Friedman, Abstract).

Stated differently, for example, in the present invention a plurality of algorithm may be prepared wherein one is randomly selected using the camera in each photographing session. This randomly selected algorithm may be selected according to an instruction signal from the authentication section, for example. (see present specification, page 16).

Friedman is not concerned at all with selecting an algorithm because Friedman always uses a predetermined algorithm that in essence is a pre-determined algorithm.

As such, the present invention as set forth in claim 1 is at least distinguishable from Friedman in that the present invention uses a "randomly selected algorithm."

In addition, applicant respectfully submits that the claimed "identification information" is distinguishable from Friedman's "public key". The Examiner alleges that Friedman's public key is unique to the camera, therefore it identifies the camera and therefore allegedly reads on the claimed "identification information." (see final Office Action, page 5, last paragraph). Applicant respectfully disagrees with this assertion.

Applicant respectfully points out that one skilled in the art would recognize that a public key by definition is not unique but instead is known to everyone. Friedman merely discloses that the embedded "private key" is not known by anyone except perhaps the manufacturer of the camera and all the user needs to know is a "public key." (see Friedman, col. 4, lines 35-46).

However, a "public key" is not unique to a camera but is instead unique to a "private key." Simply because the "private key" is embedded into the camera does not make the "public key" unique to the camera. Applicant respectfully points out to the Examiner that an important element to the public key system is that the public and private keys are related in such a way that only the public key can be used to encrypt messages and only the corresponding private key can be used to decrypt them. Moreover, it is virtually impossible to deduce the private key if you know the public key. However, this in no way suggests that the "public key" in Friedman identifies a produced image.

Further, the Examiner's argument that Friedman's "public key" reads upon the claimed identification information is improper since the "public key" disclosed in Friedman is unique to the digital camera and it is different from the "identification information" unique to the photographed image used in order to identify one-by-one photographed images photographed by the digital camera.

Independent claims 1, 4 and 7 recite, *inter alia,* reading out the image data of the authentication object image to which the authentication is requested by using the identification information of the image from the database and extracting the image characteristic amount, the image data or the authentication data of the matched image. Friedman fails to teach or suggest this feature.

In addition, Friedman's "public key" fails to identify any type of file name for the image or a photographer of the image, as set forth in claim 2. The Examiner has failed to identify where Friedman discloses identifying a file name or a photographer associated with a produced image, as set forth in claim 2.

Moreover, although the image hash disclosed by Friedman is the assembly of data unique to identify an image, it does not represent the features of an image itself such as a histogram of brightness or lightness, a density histogram of each color, edges or spatial frequencies of divided

areas in an entire image. Thus, it does not disclose the image characteristic amount as set forth in claim 1 of the present application.

Therefore, the rejection of the claims based on the Examiner's argument that Friedman's "image file hash" reads upon the claimed image characteristic amount is clearly improper.

Accordingly, withdrawal of the rejection of claims 1 and 2 under 102(b) as being anticipated by Friedman is respectfully requested.

Mintzer Reference

Applicant also respectfully submits that the present invention as set forth in independent claim 7 fails to be anticipated by Mintzer for at least the following reasons:

For example, the Examiner alleges that Mintzer discloses attaching the authentication data to the produced imaged or embedding the authentication data into the produced image, *when the imaging apparatus produces the produced image*, as set forth in claim 7. (see final office action, page 6). Applicant respectfully disagrees with this allegation.

For example, Mintzer merely discloses that in the invisible image stamper in block 103, the source image 101 and the stamping information 100 are combined to produce a stamped source image 104. Furthermore, Mintzer discloses that the stamping process is carried out in a digital computer 102. (see Mintzer, col.6, lines 24-35).

In other words, Mintzer's system takes an existing source image 101 and stamping information 100 and combine the two in an invisible image stamper 103. (see Mintzer, Fig. 1). As such, Mintzer fails to attach the authentication data to the produced image when the imaging apparatus produces the image, as set forth in claim 7. Instead, Mintzer takes an existing source image and stamping information and combine the two after the source image has been produced. As such, Minzter's system fails to include an imaging device. Mintzer merely takes an existing image and combines it with stamping information. (see Mintzer, Fig. 1).

Furthermore, because claim 7 in the present application recites that the authentication data is attached when the imaging apparatus produces the produced image, it goes to follow that such an attachment of authentication data is carried out in the imaging apparatus, e.g., a camera for example.

In contrast with the present invention as set forth in claim 7, Mintzer merely uses a computer system 110 connected to a network with a imager server 108 in order to realize its invention. The stamping process in Mintzer is carried out in a digital computer 102, not in an imaging apparatus. (see Mintzer, col. 6, lines 32-33). Mintzer clearly fails to disclose that its digital computer 102 is an imaging apparatus. (see Mintzer, Fig. 1).

Furthermore, Mintzer fails to disclose the produced image, the authentication data, and the identification information of the produced image as set forth in the present invention.

Accordingly, withdrawal of the rejection of the claim 7 under Mintzer is respectfully requested.

According to MPEP §2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ...claims." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913 (Fed. Cir. 1989). The elements must be arranged as required by the claims, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Applicant respectfully submits that the Office Action has failed to establish the required *prima facie* case of anticipation because the cited references, Mintzer and Friedman, both fail to teach or suggest each and every feature as set forth in the claimed invention.

Applicant respectfully submits that independent claims 1 and 7 are allowable over Friedman and Mintzer, respectively, for at least the reasons noted above.

As for each of the dependent claims not particularly discussed above, these claims are also allowable for at least the reasons set forth above regarding their corresponding independent claims, and/or for the further features claimed therein.

Accordingly, withdrawal of the rejection of claims 1, 2 and 7 under 35 U.S.C. §102(b) is respectfully solicited.

Rejections under 35 U.S.C. §103(a)

Friedman combined with Mintzer

For at least the reasons noted above, applicant respectfully submits that claims 3-6, 8 and 9 are distinguishable from Friedman and/or Mintzer, either alone or in combination.

First of all, applicant respectfully points out that the **rejection of dependent claim 6 is improper** because claim 6 is dependent upon independent claim 4, which shows a separate rejection.

Secondly, as for the rejection of dependent claims 3 and 6 under Friedman, the Examiner again merely takes Official Notice that using computers as an imaging apparatus or using digital cameras is well known in the art. However, the Examiner has failed to show how using computers and/or digital cameras in combination with the many other features of the present invention is well known.

As such, unless the Examiner can provide support, in the form of a reference, to prove his allegations, applicant respectfully requests that that the Examiner withdrawn such an improper Official Notice rejections of claims 3 and 6 under section 103(a).

Furthermore, as set forth above regarding the rejection of claim 1, Friedman fails to at least teach or suggest randomly selecting an algorithm.

Accordingly, applicant respectfully requests withdrawal of the rejection of claims 3 and 6 under 103(a) as being unpatentable over Friedman.

Thirdly, as for the rejection of claims 4 and 5 under the combination of Friedman and Mintzer, applicant respectfully submits that such a combination fails to teach or suggest each and every feature as set forth in claims 4 and 5.

For example, the combination of Mintzer and Friedman fails to at least teach or suggest reading out the first image data recorded together with the identification information of the produced image that is the same as the identification information of the authentication object image from the database in the authentication section and acquiring a second image data from the authentication object image, as set forth in claim 4.

Furthermore, both Friedman and Mintzer fail to teach or suggest that when looking at a consistency between the first and second image data the exact matching between the data is not required, as set forth in claims 13, 14 and 24.

Instead, Friedman merely compares the image hash from the hash calculator with the secure image hash from the decrypt or and if these two hash match, the images are said to be identical. However, in Friedman, if even one single bit in the image being authenticated has been altered, the two hashes will not match and the image authenticity will not be affirmed. (see Friedman, col. 6, lines 31-52). In other words, Friedman's authentication process requires an exact match in order to authenticate the data.

However, in the present invention, the exact matching between the data is not required and a consistency which is equal to a predetermined value or larger is regarded to be sufficient, for example. (see present specification, page 20).

As such, applicant respectfully submits that the present invention is distinguishable from Friedman in that exact matches are not required in the present case for authentification to be confirmed. The Examiner concedes this fact. (see final Office Action, page 8).

In an attempt to show this feature, the Examiner imports Mintzer. However, applicant submits that Mintzer also fail to disclose looking at the consistency value between the first and second image data and not requiring an exact match between the data.

For example, Mintzer merely discloses that the absolute value differences for all pixels are added up and if the sum exceeds a pre-defined threshold, then the stamped image is declared as having been altered. (see Mintzer, col. 9, lines 27-30). As such, Mintzer looks at the "amount of inconsistency", i.e., the absolute value differences for all pixels, and if this summed inconsistency value exceeds a certain threshold value, then the image has been altered. As such, in Mintzer the "inconsistency amount" has to be a certain threshold value or less. On the other hand, in the present invention the "amount of consistency" is looked at to determine if a consistency equal to a predetermined value or larger has been reached.

As such, Mintzer fails to compare a "consistency value" to a predetermine value.

Accordingly, withdrawal of the rejection of the claims 4 and 5 under the combination of Friedman and Mintzer is respectfully requested.

Regarding claims 8 and 9, applicant respectfully submits that the combination of Mintzer and Friedman fail to teach or suggest the claimed invention.

For example, as noted above, aside from the Examiner's allegations, Mintzer fails to disclose an imaging device. Mintzer merely receives a source image from an unknown source. (see Mintzer, Abstract). Furthermore, Mintzer fails to disclose attaching authentication data to the produced image when the imaging apparatus produces the image. Friedman also fails to disclose the aforementioned feature. As such, Friedman fails to make up for all of the deficiencies found in Mintzer.

Furthermore, dependent claims 10-24 recite further features that fail to be discloses by the combination of Friedman and Mintzer.

To establish a *prima facie* case of Obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck,* 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

Applicant respectfully submits that the cited art fails to provide a *prima facie* case for obviousness of the present invention for at least the reasons noted above.

Accordingly, withdrawal of the rejection of claims 3-6, 8 and 9 under 35 U.S.C. §103(a) is respectfully requested.

Conclusion

In view of the foregoing, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Carolyn T. Baumgardner (Reg. No. 41,345) at (703) 205-8000 **to schedule a Personal Interview**.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment from or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17; particularly, the extension of time fees.

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Respectfully submitted,

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